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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,601	10/28/2003	Arthur Day	038190270830	6328

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EXAMINER	
BRYANT, DAVID P	
ART UNIT	**PAPER NUMBER**
3726	

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/695,601	DAY ET AL.	
	Examiner	Art Unit	
	David P. Bryant	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *15-17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *102803 & 031405*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I (claims 1-14) in the reply filed on February 3, 2006, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 15-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Double Patenting

The following nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 4, 9, 11, and 14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,357,101 in view of Rance (U.S. Patent No. 2,861,484) or DeLeeuw (U.S. Patent No. 710,257).

Claims 1 and 11: Claim 1 of '101 includes all limitations recited, with the exceptions of (1) a multiple-layer structure in which the hole is drilled, and (2) the electromagnet defining the location of the hole to be drilled.

Although not explicitly recited in claim 1 of '101, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the claimed method of '101 could be used to drill a hole into either a single layer structure or a multiple layer structure, and to perform either method would have been an obvious matter of choice depending merely on the particular workpiece to be drilled. Further, in the case of a multiple layer structure, the examiner takes Official Notice that the layers thereof are conventionally provided with an adhesive sealant therebetween to provide a supplemental fastening means while at the same time ensuring a sealed interface therebetween. It would have been obvious to perform this sealing step to provide these advantages.

Both Rance and DeLeeuw teach electromagnetic drill clamps. In Rance, see Figure 2 and column 3, lines 7-13 and 22-25. In DeLeeuw, see the Figure and page 1, lines 54-92. In both references, an opening is defined through the electromagnet that serves as the drill guide.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided an opening in the electromagnet recited in claim 1 of '101 such that the electromagnet can simultaneously serve as both a clamping means and a drill guide.

Claim 4: The magnetic clamping block recited in claim 1 of '101 is not claimed as having an opening therein aligned with the opening of the electromagnet. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided such an opening in the clamping block such that the drill tip can enter therein to prevent damage to the clamping block.

Claim 9: The limitations herein are recited in the sending, detecting, and aligning steps found in claim 1 of '101.

Claim 14: Although not explicitly recited in claim 1 of '101, one of ordinary skill in the art at the time the invention was made would have found it obvious to normalize the opening defined by the electromagnet to the portion of the structure to be drilled to ensure that the drilled hole is formed normal to the surface thereof.

Claims 2 and 3 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,357,101 in view of Rance (U.S. Patent No. 2,861,484) or DeLeeuw (U.S. Patent No. 710,257), as applied to claim 1 above, and further in view of Japanese reference 6-270005 (JP).

JP teaches the use of a template **34** on a workpiece to align a drill guide **33** with desired hole locations. See Figures 1 and 7.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a template, as taught by JP, in combination with the electromagnetic drill guide of '101/Rance or '101/DeLeeuw, to facilitate positioning of the electromagnetic drill guide at the desired hole locations to be drilled.

Claims 5-8, 10, 12, and 13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,357,101 in view of Rance (U.S. Patent No. 2,861,484) or DeLeeuw (U.S. Patent No. 710,257), as applied to claim 1 above, and further in view of Givler (U.S. Patent No. 5,685,058).

The combination of claim 1 of '101 with either Rance or DeLeeuw fails to teach drilling a hole having a countersunk portion, or the claimed steps of flowing air through the electromagnet and/or a secondary tube to feed a fastener into the drilled hole or to remove debris from the hole as it is being drilled.

Givler teaches all of these missing features in a combined drilling/fastening apparatus for multiple layer structures. Figure 25 depicts the countersunk hole drilled by drill **176**. Figure 26 depicts a laminar flow of air through the opening in the drill guide **362** that feeds a headed rivet into position after the hole is drilled. Figure 28 depicts an air nozzle **378** for blowing air through drill guide **362** to clear debris from the structure as the hole is being drilled.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have drilled a countersunk hole, as taught by Givler, using the method of '101 (as modified by either Rance or DeLeeuw) to form a hole with a seating surface complementary to the head of a rivet to be secured therein.

Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided air flow through the opening in the electromagnetic drill guide of either '101/Rance or '101/DeLeeuw, as taught by Givler, to feed a fastener into the drilled hole or to remove debris from the hole as it is being drilled.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Bryant whose telephone number is 571-272-4526. The examiner can normally be reached on Monday-Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on 571-272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David P. Bryant
Primary Examiner
Art Unit 3726

dpb
2/21/06